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NEUROINFORMATION RESEARCH INSTITUTE

DEPARTMENT OF BIOPHYSICS

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Dr. Marshall Nirenberg
Laboratory of Biochemical Genetics
National Heart, Lung & Blood Institute
National Institutes of Health
Bldg. 36, Rm. 1C-27
Bethesda, MD 20892
U. S. A.

Dear Marshall :

I'm spending a very busy time, because every tasks are quite new to me as a laboratory head, though these are not distressful.

Unfortunately I haven't had an invitation letter from the Cold Spring Harbor Laboratory for this year's symposium on Molecular Biology on Signal Transduction, I have two abstracts in the meeting as a coauthor with S. Numa and D. Brown. Two abstracts are enclosed for your interest.

The research project on N x L hybrid cells are going well. The enclosed is a piece of data which shows the $IP_3(1,4,5)$ formation is a signal for ACh-induced hyperpolarization. We are planning to define which muscarinic subtype is present in these NL (308, 309, & 1F) hybrid cells.

As you know Toshi Nagastu has cloned the tyrosine hydroxylase gene, he is interested in seeing the gene expression of species-difference in clonal cell lines as well as different tissues. I've provided him N1E115 and NX31T cells which really have TH molecules in them (see enclosed photos). I remember that you said you have several adrenergic clones of chick retina and neuroblastomas (including N18-RE-105).

Please send me N18-RE-105 cells and if possible, one or two other retina hybrid cells in your list for TH-gene-expression experiments, under the understanding that these cells will only be used as a part of my own experiments participated.

With my best regards.

Sincerely yours,



Haruhiro Higashida

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